PETROLEUM CHEMISTRY U.S.S.R.

a translation of

NEFTEKHIMIYA

Chief Editor: P. I. SANIN
Secretary: M. P. TETERINA

EDITORIAL BOARD

YE. T. DENISOV, G. D. GAL'PERN, KH. M. MINACHEV, AL. A. PETROV,
L. S. POLAK, YE. A. VIKTOROVA

VOLUME 25

SUBJECT/AUTHOR INDEX

PERGAMON PRESS

OXFORD · NEW YORK
BEIJING · FRANKFURT · SÃO PAULO · SYDNEY · TOKYO · TORONTO

PETROLEUM CHEMISTRY: U.S.S.R.

This journal is published quarterly by Pergamon Press and contains selected papers translated from *Neftekhimiya* Vol. XXV

Translation Editor: E. V. WHITEHEAD

Translator: A. CROZY

Editorial and Advertising Offices:

Pergamon Press plc, Headington Hill Hall, Oxford OX3 0BW, England
Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523, U.S.A.

AUTHOR INDEX

Aidogdyyev, A. A. *See* **Niyazov, B. G., Sergiyenko, S. R.** and **Aidogdyyev, A. A.**	**2,**	71
Alekseyeva, Ye. V. *See* **Danilov, A. M., Talisman, Ye. L.** and **Alekseyeva, Ye. V.**	**4,**	246
An, V. V. *See* **Filimonova, T. A., Gorbunova, L. V., An, V. V.** and **Kam'yanov, V. F.**	**2,**	83
Antipenko, V. R. *See* **Pevneva, G. S., Zemtseva, L. I., Antipenko, V. R.** and **Titov, V. I.**	**2,**	126
Aranovich, R. A. *See* **Kagan, Yu. B.** (dec.), **Slivinskii, Ye. V., Kurkin, V. I., Korneyeva, G. A., Aranovich, R. A., Fal'kov, I. G., Rzhevskaya, N. N.** and **Loktev, S. M.**	**4,**	233
Artem'yev, V. Yu. *See* **Tumanyan, B. P.** and **Artem'yev, V. Yu.**	**3,**	196
Babicheva, T. A. *See* **Goncharov, I. V., Babicheva, T. A., Bodak, A. N., Nemirovskaya, G. B.** and **Mashigorov, A. A.**	**2,**	95
Baikova, A. Ya., *See* **Nikitin, Yu. Ye., Baikova, A. Ya., Vakhitova, N. G., Khorosheva, S. I.** and **Murinov, Yu. I.**	**1,**	49
Beiko, O. A. *See* **Mozzhelina, T. K., Serebrennikova, O. V., Beiko, O. A.** and **Krasovskaya, L. I.**	**3,**	189
Beiko, O. A. *See* **Voronova, O. S., Bol'shakov, G. F., Beiko, O. A.** and **Turov, Yu. P.**	**2,**	105
Belomestnykh, I. P. *See* **Volkov, R. N., Panova, V. P., Belomestnykh, I. P., Shakhnovich, G. V.** and **Isagulyants, G. V.**	**3,**	144
Berman, S. S. and **Sokolova, I. M.:** Aromatic hydrocarbons in the carbon number range (C_6–C_{12}) of Samotlor crude oil	**4,**	216
Bodak, A. N. *See* **Goncharov, I. V., Babicheva, T. A., Bodak, A. N., Nemirovskaya, G. B.** and **Mashigorov, A. A.**	**2,**	95
Boikova, T. G. *See* **Kolesnikova, L. P., Boikova, T. G.** and **Morozova, G. V.**	**3,**	139
Bol'shakova, G. F. *See* **Voronova, O. S., Bol'shakova, G. F., Beiko, O. A.** and **Turov, Yu. P.**	**2,**	105
Borisoglebskaya, A. V. *See* **Revenko, O. M., Khcheyan, Kh. Ye. Tikhonova, M. P.** and **Borisoglebskaya, A. N.**	**3,**	148
Borodatskaya, T. G. *See* **Leppke, N. Yu., Borodatskaya, T. G ., Lunin, V. V., Zyuba, B. I.** and **Khadzhiyev, S. N.**	**4,**	229
Burakova, V. N., Mozzhelina, T. K., Romanenko, T. A., Serebrennikova, O. V., Titov, V. I. and **Shilonosova, N. I.:** Composition of vanadylporphyrins of crude oils from several Surgut petroleum fractions of West Siberia	**1,**	55
Danilov, A. M., Talisman, Ye. L. and **Alekseyeva, Ye. V.:** Dienophile compounds as inhibitors of resin formation in fuels	**4,**	246
Denisov, Ye. T. *See* **Gerasimova, A. V., Kovalev, G. I., Gogitidze, L. D., Kuranova, V. I., Zverova, N. S.** and **Denisov, Ye. T.**	**3,**	166
Ernepesov, Kh. N. *See* **Vorob'eva, N. S., Zemskova, Z. K., Poladov, K., Ernepesov, Kh. N.** and **Petrov, Al. A.**	**4,**	211
Fal'kov, I. G. *See* **Kagan, Yu. B.** (dec.), **Slivinskii, Ye. V., Kurkin, V. I., Korneyeva, G. A., Aranovich, R. A., Fal'kov, I. G., Rzhevskaya, N. N.** and **Loktev, S. M.**	**4,**	233
Fatkulina, A. A. *See* **Nadirov, N. K., Vozdvizhenskii, V. F., Kondratkova, N. I.** and **Fatkulina, A. A.**	**1,**	45

Filimonova, T. A., Gorbunova, L. V., An, V. V. and Kam'yanov, V. F.: Study of the chemical nature of residual bitumen components from West Siberian petroleum 2, 83
Frolov, Ye. B., Vanyukova, N. A., Markova, Ye. I., Mikaya, A. I. and Sanin, P. I.: Carbazoles of Surakhan crude oil 1, 39
Frolov, Ye. B., Vanyukova, N. A., Mikaya, A. I. and Sanin, P. I.: Acids of Surakhany crude oil 2, 116
Frolova, L. L., *See* **Karmanova, L. P., Lyapina, N. K., Frolova, L. L., Shmakov, V. S. and Poberii, A. Yu.** 1, 27

Gal'pern, G. D. *See* **Luk'yanitsa, V. G. and Gal'pern, G. D.** 1, 19
Garanin, V. I. *See* **Minachev, Kh. M., Garanin, V. I., Navalikhina, M. D., Mironova, I. L. and Golovina G. S.** 4, 221
4, 221
Gazaryan, A. G. *See* **Krylova, A. Yu., Salekhuddin, S. M., Gazaryan, A. G., Khoang Chong Iyem and Lapidus, A. L.** 3, 155
Gerasimova, A. V., Kovalev, G. I., Gogitidze, L. D., Kuranova, V. I., Zvereva, N. S. and Denisov, Ye. T.: Oxidation of jet fuel inhibited with aromatic diamine and aminophenol in the presence of metallic copper 3, 166
Gigolashvili, N. G. *See* **Tsintskaladze, G. P., Nefedova, A. R., Gryaznova, Z. V., Tsitsishvili, G. V. and Gigolashvili, N. G.** 3, 160
Gogitidze, L. D. *See* **Gerasimova, A. V., Kovalev, G. I., Gogitidze, L. D., Kuranova, V. I., Zvereva, N. S. apd Denisov, Ye. T.** 3, 166
Golovina, G. S. *See* **Minachev, Kh. M., Garanin, V. I., Navalikhina, M. D., Mironova, I. L. and Golovina, G. S.** 4, 221
Golubeva, I. A., Vishnyakova, T. P., Kharitonov, V. V., Malova, O. V. and Shubina, O. V.: Anti-oxidative action of triazine derivatives in hydrocarbon fuel 1, 12
Golubeva, I. A. *See* **Vishnyakova, T. P., Popadopulo, I. V., Kharitonov, V. V., Golubeva, I. A. and Popova, T. V.** 1, 6
Goncharov, I. V., Babicheva, T. A., Bodak, A. N., Nemirovskaya, G. B. and Mashigorov, A. A.: The composition of asphaltenes and resins of West Siberian petroleums 2, 95
Goncharov, I. V. *See* **Turov, Yu. P. and Goncharov, I. V.** 1, 34
Gorbunova, L. V. *See* **Filimonova, T. A., Gorbunova, L. V., An, V. V. and Kam'yanov, V. F.** 2, 83
Gryaznova, Z. V. *See* **Tsintskaladze, G. P., Nefedova, A. R. Gryaznova, Z. V., Tsitsishvili, G. V. and Gigolashvili, N. G.** 3· 160

Ibadzade, A. K. *See* **Kuliyev, A. M., Kuliyeva, M. A., Kulibekova, T. N. and Ibadzade, A. K.** 3, 185
Isagulyants, G. V. *See* **Volkov, R. N., Panova, V. P., Belomestnykh, I. P., Shakhnovich, G. V. and Isagulyants, G. V.** 3, 144

Kagan, Yu. B. (dec.), Slivinskii, Ye. V., Kurkin, V. I., Korneyeva, G. A., Aranovich, R. A., Fal'kov, I. G., Rzhevskaya, N. N. and Loktev, S. M.: Cluster formation as the cause of deactivation of carbonyl-rhodium catalysts in hydroformylation of olefins 4, 233
Kam'yanov, V. F. *See* **Filimonova, T. A., Gorbunova, L. V., An, V. V. and Kam'yanov, V. F.** 2, 83
Karmanova, L. P., Lyapina, N. K., Frolova, L. L., Shmakov, V. S. and Poberii, A. Yu.: Organo-sulphur compounds and hydrocarbons of 65°–200°C distillates of Usino petroleum 1, 27

Khadzhiyev, S. N. *See* **Leppke, N. Yu., Borodatskaya, T. G., Lunin, V. V., Zyuba, B. I. and Khadzhiyev, S. N.** 4, 229

Kharitonov, V. V. *See* **Golubeva, I. A., Vishnyakova, T. P., Kharitonov, V. V., Malova, O. V. and Shubina, O. V.** 1, 12

Kharitonov, V. V. *See* **Vishnyakova, T. P., Popadopulo, I. V., Kharitonov, V. V., Golubeva, I. A. and Popova, T. V.** 1, 6

Khcheyan, Kh. Ye. *See* **Revenko, O. M., Khcheyan, Kh. Ye., Tikhonova, M. P. and Borisoglebskaya, A. V.** 3, 148

Khoang Chong Iyem *See* **Krylova, A. Yu., Salekhuddin, S. M., Gazaryan, A. G., Khoang Chong Iyem and Lapidus, A. L.** 3, 155

Khorosheva, S. I. *See* **Nikitin, Yu. Ye., Baikova, A. Ya., Vakhitova, S. I. and Murinov, Yu. I.** 1, 49

Khramova, E. V. *See* **Kharitonov, B. Ye., Volokhova, G. S., Vasil'yeva, I. I., Khramova, E. V. and Mukhina, T. N.** 3, 179

Kharitonov, B. Ye., Volokhova, G. S., Vasil'yeva, I. I., Khramova, E. V. and Mukhina, T. N.: Pyrolysis of naphthenic hydrocarbons 3, 179

Kolesnikova, L. P., Boikova, T. G. and Morozova, G. V.: Composition and distribution of aliphatic acids and hydrocarbons on Kyurovdag crude oil 3, 139

Kondratkova, N. I. *See* **Nadirov, N. K., Vozdvizhenskii, V. F., Kondratkova, N. I. and Fatkulina, A. A.** 1, 45

Korneyeva, G. A. *See* **Kagan, Yu. B. (dec.), Slivinskii, Ye. V., Kurkin, V. I., Korneyeva, G. A., Aranovich, R. A., Fal'kov, I. G., Rzhevskaya, N. N. and Laktev, S. M.** 4, 233

Kovalev, G. I. *See* **Gerasimova, A. V., Kovalev, G. I., Gogitidze, L. D., Kuranova, V. I., Zvereva, N. S. and Denisov, Ye. T.** 3, 166

Krasovskaya, I. I. *See* **Mozzhelina, T. K., Serebrennikova, O. V., Beiko, O. A. and Krasovskaya, L. I.,** 3, 189

Krylova, A. Yu., Salekhuddin, S. M., Gazaryan, A. G., Khoang Chong Iyem and Lapidus, A. L.: Activity of promoted Co-catalysts in hydrocarbon synthesis from CO and H_2 3, 155

Kulibekova, T. T. *See* **Kuliyev, A. M., Kuliyeva, M. A., Kulibekova, T. N. and Ibadzade, A. K.** 3, 185

Kuliyev, A. M., Kuliyeva, M. A., Kulibekova, T. N. and Ibadzade, A. K.: Acetoxymethyl esters of xanthic, dialkyldithiocarbamic and O,O-dialkyldithiophosphoric acid as antiwear lubricating oil additives 3, 185

Kuliyeva, M. A. *See* **Kuliyev, A. M., Kuliyeva, M. A., Kulibekova, T. N. and Ibadzade, A. K.** 3, 185

Kuranova, V. I. *See* **Gerasimova, A. V., Kovalev, G. I., Gogitidze, L. D., Kuranova, V. I., Zvereva, N. S. and Denisov, Ye. T.** 3, 166

Kurashova, E. Kh. *See* **Musayev, I. A., Kurashova, E. Kh., Simanyuk, R. N., Polyakova, A. A., Yermakova, L. S., Smirnov, M. B. and Sanin, P. I.** 2, 76

Kurkin, V. I. *See* **Kagan, Yu. B. (dec.), Slivinskii, Ye. V., Kurkin, V. I., Korneyeva, G. A., Aranovich, R. A., Fal'kov, I. G., Rzhevskaya, N. N. and Loktev, S. M.** 4, 233

Kustov, L. M. *See* **Tolkacheva, L. N., Novikova, L. A., Mikheikin, I. D., Kustov, L. M. and Minachev, Kh. M.** 3, 174

Lapidus, A. L., Savel'ev, M. M., Tsapkina, M. V., Solodov, S. N. and Sominskii, S. D.: Synthesis of hydrocarbons from CO and H_2 in the presence of catalysts based on monomolecular iron complexes 4, 241

Lapidus, A. L. *See* **Krylova, A. Yu., Salekhuddin, S. M., Gazaryan, A. G., Khoang Chong Iyem and Lapidus, A. L.** 3, 155

Leppke, N. Yu., Borodatskaya, T. G., Lunin, V. V., Zyuba, B. I. and Khadzhiyev, S. N.: Effect of heterocyclic organic compounds upon hydrogenation of toluene in the presence of catalysts based on hydrides of intermetallic compounds 4, 229
Loktev, S. M. *See* **Kagan, Yu. B. (dec.), Slivinskii, Ye. V., Kurkin, V. I., Korneyeva, G. A., Aranovich, R. A., Fal'kov, I. G., Rzhevskaya, N. N. and Loktev, S. M.** 4, 233
Luk'yanitsa, V. G. and Gal'pern, G. D.: Oxidation of petroleum sulphides with nitrogen dioxide 1, 19
Lunin, V. V. *See* **Leppke, N. Yu., Borodatskaya, T. G., Lunin, V. V., Zyuba, B. I. and Khadzhiyev, S. N.** 4, 229
Lyapina, N. K. *See* **Karmanova, L. P., Lyapina, N. K., Frolova, L. L., Shmakov, V. S. and Poberii, A. Yu.** 1, 27

Malova, O. V. *See* **Golubeva, I. A., Vishnyakova, T. P., Kharitonov, V. V., Malova, O. V. and Shubina, O. V.** 1, 12
Markova, Ye. I. *See* **Frolov, Ye. B., Vanyukova, N. A., Markova, Ye. I., Mikaya, A. I. and Sanin, P. I.** 1, 39
Mashigorov, A. A. *See* **Goncharov, I. V., Babicheva, T. A., Bodak, A. N., Nemirovskaya, G. B. and Mashigorov, A. A.** 2, 95
Mikaya, A. I. *See* **Frolov, Ye. B., Vanyukova, N. A., Markova, Ye. I., and Sanin, P. I.** 1, 39
Mikaya, A. I. *See* **Frolov, Ye. B., Vanyukova, N. A., Mikaya, A. I. and Sanin, P. I.** 2, 116
Mikheikin, I. D. *See* **Tolkacheva, L. N., Novikova, L. A., Mikheikin, I. D., Kustov, L. M. and Minachev, Kh. M.** 3, 174
Minachev, Kh. M., Garanin, V. I., Navalikhina, M. D., Mironova, I. L. and Golovina, G. S.: Hydrogenation of aromatic hydrocarbons on nickel catalysts modified with heteropolycompounds 4, 221
Minachev, Th. M. *See* **Tolkacheva, L. N., Novikova, L. A., Mikheikin, I. D., Kustov, L. M. and Minachev, Kh. M.** 3, 174
Mironova, I. L. *See* **Minachev, Kh. M., Garanin, V. I., Navalikhina, M. D., Mironova, I. L. and Golovina, G. S.** 4, 221
Morozova, G. V. *See* **Kolesnikova, L. P., Boikova, T. G. and Morozova, G. V.** 3, 139
Mozzhelina, T. K., Serebrennikova, O. V., Beiko, O. A. and Krasovskaya, L. I.: Highly effective liquid chromatography of petroleum vanadylporphyrins 3, 189
Mozzhelina, T. K. *See* **Burakova, V. N., Mozzhelina, T. K., Romanenko, T. A., Serebrennikova, O. V., Titov, V. I. and Shilonosova, N. I.** 1, 55
Mukhina, T. N. *See* **Kharitonov, B. Ye., Volokhova, G. S., Vasil'yeva, I. I., Khramova, E. V. and Mukhina, T. N.** 3, 179
Murinov, Yu. I. *See* **Nikitin, Yu. Ye., Baikova, A. Ya., Vakhitova, N. G., Khorosheva, S. I. and Murinov, Yu. I.** 1, 49
Musayev, I. A., Kurashova, E. Kh., Simanyuk, R. N., Polyakova, A. A., Yermakova, L. S., Smirnov, M. B. and Sanin, P. I.: Hydrocarbons from West Siberian crude oils 2, 76

Nadirov, N. K., Vozdvizhenskii, V. F., Kondratkova, N. I. and Fatkulina, A. A.: Effect of germanium and zirconium on the activity of a platinium catalysts in dehydrocyclization of n-hexane 1, 45
Navalikhina, M. D. *See* **Minachev, Kh. M., Garanin, V. I., Navalikhina, M. D., Mironova, I. L. and Golovina, G. S.** 4, 221
Nefedova, A. R. *See* **Tsintskaladze, G. P., Nefedova, A. R., Gryaznova, Z. V., Tsitsishvili, G. V. and Gigolashvili, N. G.** 3, 160

Nemirovskaya, G. B. *See* **Goncharov, I. V., Babicheva, T. A., Bodak, A. N., Nemirovskaya, G. B.** and **Mashigorov, A. A.** 2, 95
Nikitin, Yu. Ye., Baikova, A. Ya., Vakhitova, N. G., Khorosheva, S. I. and **Murinov, Yu. I.**: New selective solvents of aromatic hydrocarbons based on petroleum sulphoxides 1, 49
Niyazov, B. G., Sergiyenko, S. R. and **Aidogdyyev, A. A.**: Composition and structure of high molar mass polycyclic naphthenic hydrocarbons of petroleum 2, 71
Novikova, L. A. *See* **Tolkacheva, L. N., Novikova, L. A., Mikheikin, I. D., Kustov, L. M.** and **Minachev, Kh. M.** 3, 174

Panova, V. P. *See* **Volkov, R. N., Panova, V. P., Belomestnykh, I. P., Shakhnovich, G. V.** and **Isagulyants, G. V.** 3, 144
Pekhk, T. I. *See* **Vorob'yeva, N. S., Zemskova, Z. K., Pekhk, T. I.** and **Petrov, Al. A.** 1, 1
Petrov, Al. A. *See* **Vorob'eva, N. S., Zemskova, Z. K., Poladov, K., Ernepesov, Kh. N.** and **Petrov, Al. A.** 4, 211
Petrov, Al. A. *See* **Vorob'yeva, N. S., Zemskova, Z. K., Pekhk, T. I.** and **Petrov, Al. A.** 1, 1
Pevneva, G. S., Zemtseva, L. I., Antipenko, V. R. and **Titiv, V. I.**: Special features of the composition and chemical structure of "green pigments"–anomalous components of petroleum vanadylporphyrins 2, 126
Poberii, A. Yu. *See* **Karmanova, L. P., Lyapina, N. K., Frolova, L. L., Shmakov, V. S.** and **Poberii, A. Yu.** 1, 27
Poladov, K. *See* **Vorob'eva, N. S., Zemskova, Z. K., Poladov, K., Ernepesov, Kh. N.** and **Petrov, Al. A.** 4, 211
Polyakova, A. A. *See* **Musayev, I. A., Kurashova, E. Kh., Simanyuk, R. N., Polyakova, A. A., Yermakova, L. S., Smirnov, M. B.** and **P. I. Sanin** 2, 76
Popadopulo, I. V. *See* **Vishnyakova, T. P., Popadopulo, I. V., Kharitonov, V. V., Golubeva, I. A.** and **Popova, T. V.** 1, 6
Popova, T. V. *See* **Vishnyakova, T. P., Popadopulo, I. V., Kharitonov, V. V., Golubeva, I. A.** and **Popova, T. V.** 1, 6

Revenko, O. M., Khcheyan, Kh. Ye., Tikhonova, M. P. and **Borisoglebskaya, A. V.**: Oxidative methylation of toluene 3, 148
Romanenko, T. A. *See* **Burkova, V. N., Mozzhelina, T. K., Romanenko, T. A., Serebrennikova, O. V., Titov, V. I.** and **Shilonosova, N. I.** 1, 55
Rzhevskaya, N. N. *See* **Kagan Yu. B.** (dec.), **Slivinskii, Yu. V., Kurkin, V. I., Korneyeva, G. A., Aranovich, R. A., Fal'kov, I. G., Rzhevskaya, N. N.** and **Loktov, S. M.** 4, 233

Sanin, P. I. *See* **Frolov, Ye. B., Vanyukova, N. A., Markova, Ye. I., Mikaya, A. I.** and **Sanin, P. I.** 1, 39
Sanin, P. I. *See* **Frolov, Ye. B., Vanyukova, N. A., Mikaya, A. I.** and **Sanin, P. I.** 2, 116
Sanin, P. I. *See* **Musayev, I. A., Kurashova, E. Kh., Simanyuk, R. N., Smirnov, M. B.,** and **Sanin, P. I.** 2, 76
Salekhuddin, S. M. *See* **Krylova, A. Yu., Salekhuddin, S. M., Gazaryan, A. G., Khoang Chong Iyem** and **Lapidus, A. L.** 3, 155
Savel'ev, M. M. *See* **Lapidus, A. L., Savel'ev, M. M., Tsapkina, M. V., Solodov, S. N.** and **Sominskii, S. D.** 4, 241
Serebrennikova, O. V. *See* **Mozzhelina, T. K., Serebrennikova, O. V., Beiko, O. A.** and **Krasovskaya, L. I.** 3, 189
Serebrennikova, O. V. *See* **Burakova, V. N., Mozzhelina, T. K., Romanenko, T. A., Serebrennikova, O. V., Titov, V. I.** and **Shilonosova, N. I.** 1, 55

Sergiyenko, S. R. *See* Niyazov, B. G., Sergiyenko, S. R. and Aidogdyyev, A. A. 2, 71
Shakhnovich, G. V. *See* Volkov, R. N., Panova, V. P., Belomestnykh, I. P., Shakhnovich, G. V. and Isagulyants, G. V. 3, 144
Shilonosova, N. I. *See* Burakova, V. N., Mozzhelina, T. K., Romanenko, T. A., Serebrennikova, O. V., Titov, V. I. and Shilonosova, N. I. 1, 55
Shmakov, V. S. *See* Karmanova, L. P., Lyapina, N. K., Frolova, L. L., Shmakova, V. S. and Poberii, A. Yu. 1, 27
Shubina, O. V. *See* Golubeva, I. A., Vishnyakova, I. P., Kharitonov, V. V., Malova, O. V. and Shubina, O. V. 1, 12
Simanyuk, R. N. *See* Musayev, I. A., Kurashova, E. Kh., Simanyuk, R. N., Polyakova, A. A., Yermakova, L. S., Smirnov, M. B. and Sanin, P. I. 2, 76
Slivinskii, Ye. V. *See* Kagan Yu. B. (dec.), Slivinskii, Ye. V., Kurkin, V. I., Korneyeva, G. A., Aranovich, R. A., Fal'kov, I. G., Rzhevskaya, N. N. and Loktev, S. M. 4, 233
Smirnov, M. B. *See* Musayev, I. A., Kurashova, E. Kh., Simanyuk, R. N., Polyakova, A. A., Yermakova, L. S., Smirnov, M. B. and Sanin, P. I. 2, 76
Sokolova, I. M. *See* Berman, S. S. and Sokolova, I. M. 4, 216
Solodov, S. N. *See* Lapidus, A. L., Savel'ev, M. M., Tsapkina, M. V., Solodov, S. N. and Sominskii, S. D. 4, 241
Sominskii, S. D. *See* Lapidus, A. L., Savel'ev, M. M., Tsapkina, M. V., Solodov, S. N. and Sominskii, S. D. 4, 241

Talisman, Ye. L. *See* Danilov, A. M., Talisman, Ye. L. and Alekseyeva, Ye. V. 4, 246
Tikhonova, M. P. *See* Revenko, O. M., Khcheyan, Kh. Ye., Tikhonova, M. P. and Borisoglebskaya, A. V. 3, 148
Titov, V. I. *See* Burkova, V. N., Mozzhelina, T. K., Romanenko, T. A., Serebrennikova, O. V., Titov, V. I. and Shilonosova, N. I. 1, 55
Titov, V. I. *See* Pevneva, G. S., Zemtseva, L. I., Antipenko, V. R. and Titov, V. I. 2, 126
Tolkacheva, L. N., Novikova, L. A., Mikheikin, T. D., Kustov, L. M. and Minachev, Kh. M.: Causes of deactivation of chromium-containing Y type zeolites in hydration of olefins 3, 174
Tsapkina, M. V. *See* Lapidus, A. L., Savel'ev, M. M., Tsapkina, M. V., Solodov, S. N. and Sominskii, S. D. 4, 241
Tsintskaladze, G. P., Nefedova, A. R., Gryaznova, Z. V., Tsitsishvili, G. V. and Gigolashvili, N. G.: Active centres of decationated zeolites in oxidative transformation of methanol 3, 160
Tsitsishvili, G. V. *See* Tsintskaladze, G. P., Nefedova, A. R., Gryaznova, Z. V., Tsitsishvili, G. V. and Gigolashvili, N. G. 3, 160
Tumanyan, B. P. and Artem'yev, V. Yu.: Effect of solvents on paramagnetic properties of asphaltenes 3, 196
Turov, Yu. P. and Goncharov, I. V.: Nitrogen bases of 180°–360°C cuts of West Siberian crude oils 1, 34
Turov, Yu. P. *See* Voronova, O. S., Bol'shakov, G. F., Beiko, O. A. and Turov, Yu. P. 2, 105

Vakhitova, N. G. *See* Nikitin, Yu. Ye., Baikova, A. Ya., Vakhitova, N. G., Khorosheva, S. I. and Murinov, Yu. I. 1, 49
Vanyukova, N. A. *See* Frolov, Ye. B., Vanyukova, N. A., Markova, Ye. I., Mikaya, A. I. and Sanin, P. I. 1, 39
Vanyukova, N. A. *See* Frolov, Ye. B., Vanyukova, N. A., Mikaya, A. I. and Sanin, P. I. 2, 116
Vasil'yeva, I. I. *See* Kharitonov, B. Ye., Volokhova, G. S., Vasil'yeva, I. I., Khramova, E. V. and Mukhina, T. N. 3, 179

Vishnyakova, T. P., Popadopulo, I. V., Kharitonov, V. V., Golubeva, I. A. and **Popova, T. V.**: Kinetic regularities of oxidation of fuel T-6 — **1,** 6
Vishnyakova, T. P. *See* **Golubeva, I. A., Vishnyakova, T. P., Kharitonov, V. V., Malova, O. V.** and **Shubina, O. V.** — **1,** 12
Volkov, R. N., Panova, V. P., Belomestnykh, I. P., Shakhnovich, G. V. and **Isagulyants, G. V.**: Oxidative dehydrogenation of ethylbenzene on vanadium-magnesium oxide catalysts — **3,** 144
Volokhova, G. S. *See* **Kharitonov, B. Ye., Volokhova, G. S., Vasil'yeva, I. I., Khramova, E. V.** and **Mukhina, I. N.** — **3,** 179
Vorob'yeva, N. S., Zemskova, Z. K., Pekhk, T. I. and **Petrov, Al. A.**: Equilibrium composition and properties of cedrane epimers — **1,** 1
Vorob'eva, N. S., Zemskova, Z. K., Poladov, K., Ernepesov, Kh. N. and **Petrov, Al. A.**: Lycopane and isolycopane in petroleum — **4,** 211
Voronova, O. S., Bol'shakov, G. F., Beiko, O. A. and **Turov, Yu. P.**: The nature of nitrogen bases of West Siberian crude oils — **2,** 105

Yermakova, L. S. *See* **Musayev, I. A., Kurashova, E. Kh., Simanyuk, R. N., Polyakova, A. A., Yermakova, L. S., Smirnov, M. B.** and **Sanin, P. I.** — **2,** 76

Zemskova, Z. K. *See* **Vorob'yeva, N. S., Zemskova, Z. K., Pekhk, T. I.** and **Petrov, Al. A.** — **1,** 1
Zemskova, Z. K. *See* **Vorob'eva, N. S., Zemskova, Z. K., Poladov, K., Ernepesov, Kh. N.** and **Petrov, Al. A.** — **4,** 211
Zemtseva, L. I. *See* **Pevneva, G. S., Zemtseva, L. I., Antipenko, V. R.** and **Titov, V. I.** — **2,** 126
Zvereva, N. S. *See* **Gerasimova, A. V., Kovalev, G. I., Gogitidze, L. D., Kuranova, V. I., Zvereva, N. S.** and **Denisov, Ye. T.** — **3,** 166
Zyuba, B. I. *See* **Leppke, N. Yu., Borodatskaya, T. G., Lunin, V. V., Zyuba, B. I.** and **Khadzhiyev, S. N.** — **4,** 229

SUBJECT INDEX

Acetomethyl esters of xanthic, dialkydithiocarbamic and O,O-dialkyldithiophosphoric acids as antiwear lubricating oil additives 3, 185
Acids of Surakhany crude oil 2, 116
Aliphatic acids, composition and distribution of — and hydrocarbons on Kyurovdag crude oil 3, 139
Aminophenol, oxidation of jet fuel inhibited with aromatic diamine and — in the presence of metallic copper 3, 166
Anti-oxidative action of triazine derivatives in hydrocarbon fuel 1, 12
Aromatic hydrocarbons in the carbon number range (C_6–C_{12}) of Samotlor crude oil 4, 216
Aromatic hydrocarbons, hydrogenation of — on nickel catalysts modified with heteropolycompounds 4, 221
Aromatic hydrocarbons, new selective solvents of — based on petroleum sulphoxides 1, 49
Asphaltenes, effect of solvents on paramagnetic properties of — 3, 196
Asphaltenes, the composition of — and resins of West Siberian petroleums 2, 95

Bitumen, study of the chemical nature of residual — components from West Siberian petroleum 2, 83

Carbazoles of Surakhan crude oil 1, 39
Carbonyl-rhodium catalysts, cluster formation as the cause of deactivation of — in hydroformylation of olefins 4, 233
Catalyst, effect of germanium and zirconium on the activity of a platinum — in dehydrocyclization of n-hexane 1, 45
Catalysts, cluster formation as the cause of deactivation of carbonyl-rhodium — in hydroformylation of olefins 4, 233
Catalysts, effect of heterocyclic organic compounds upon hydrogenation of toluene in the presence of — based on hydrides of intermetallic compounds 4, 229
Catalysts, hydrogenation of aromatic hydrocarbons on nickel — modified with heteropolycompounds 4, 221
Catalysts, oxidative dehydrogenation of ethylbenzene on vanadium-magnesium oxide — 3, 144
Catalysts, synthesis of hydrocarbons from CO and H_2 in the presence of — based on mononuclear iron complexes 4, 241
Cedrane epimers, equilibrium composition and properties of — 1, 1
Chromatography, highly effective liquid — of petroleum vanadylporphyrins 3, 189
Chromium-containing Y type zeolites, causes of deactivation of — in hydration of olefins 3, 174
Cluster formation as the cause of deactivation of carbonyl-rhodium catalysts in hydroformylation of olefins 4, 233
Co-catalysts, activity of promoted — in hydrocarbon synthesis from CO and H_2 3, 155
Copper, oxidation of jet fuel inhibited with aromatic diamine and aminophenol in the presence of metallic — 3, 166
Crude oil, acids of Surakhany — 2, 116
Crude oil, aromatic hydrocarbons in the carbon number range (C_6–C_{12}) of Samotlor — 4, 216

Crude oil, carbazoles of Surakhan — 1, 39
Crude oil, composition and distribution of aliphatic acids and hydrocarbons on Kyurovdag — 3, 139
Crude oils, composition of vanadylporphyrins of — from several Surgut petroleum fractions of West Siberia 1, 55
Crude oils, hydrocarbons from West Siberian — 2, 76
Crude oils, nitrogen bases of 180°–360°C cuts of West Siberian — 1, 34
Crude oils, the nature of nitrogen bases of West Siberian — 2, 105

Deactivation, causes of — of chromium-containing Y type zeolites in hydration of olefins 3, 174
Deactivation, cluster formation as the cause of — of carbonyl-rhodium catalysts in hydroformylation of olefins 4, 233
Decationated zeolites, active centres of — in oxidative transformation of methanol 3, 160
Dehydrocyclization, effect of germanium and zirconium on the activity of a platinum catalyst in — of n-hexane 1, 456
Diamine, oxidation of jet fuel inhibited with aromatic — and aminophenol in the presence of metallic copper 3, 166
Dienophile compounds as inhibitors of resin formation in fuels 4, 241

Epimers, equilibrium composition and properties of cedrane — 1,
Ethylbenzene, oxidative dehydrogenation of — on vanadium-magnesium oxide catalysts 3, 144

Fuel, anti-oxidative action of triazine derivatives in hydrocarbon — 1, 12
Fuel, oxidation of jet — inhibited with aromatic diamine and aminophenol in the presence of metallic copper 3, 166
Fuel T-6, kinetic regularities of oxidation of — 1, 6
Fuels, dienophile compounds as inhibitors of resin formation in — 4, 246

Germanium, effect of — and zirconium on the activity of a platinum catalyst in dehydrocyclization of n-hexane 1, 45
"Green pigments", special features of the composition and chemical structure of — –anomalous components of petroleum vanadylporphyrins 2, 126

Heterocyclic organic compounds, effect of — upon hydrogenation of toluene in the presence of catalysts based on hydrides of intermetallic compounds 4, 229
Heteropolycompounds, hydrogenation of aromatic hydrocarbons on nickel catalysts modified with — 4, 221
n-Hexane, effect of germanium and zirconium on the activity of a platinum catalyst in dehydrocyclization of — 1, 45
Hydration, causes of deactivation of chromium-containing Y type zeolites in — of olefins 3, 174
Hydrides, effect of heterocyclic organic compounds upon hydrogenation of toluene in the presence of catalysts based on — of intermetalic compounds 4, 229
Hydrocarbon fuel, anti-oxidative action of triazine derivatives in — 1, 12
Hydrocarbon synthesis, activity of promoted Co-catalysts in — from CO and H_2 3, 155
Hydrocarbons from West Siberian crude oils 2, 76

Hydrocarbons, aromatic — in the carbon number range (C_6–C_{12}) of Samotlor crude oil 4, 216
Hydrocarbons, composition and distribution of aliphatic acids and — on Kyurovdag crude oil 3, 139
Hydrocarbons, composition and structure of high molar mass polycyclic naphthenic — of petroleum 2, 71
Hydrocarbons, hydrogenation of aromatic — on nickel catalysts modified with heteropolycompounds 4, 221
Hydrocarbons, new selective solvents of aromatic — based on petroleum sulphoxides 1, 49
Hydrocarbons, organo-sulphur compounds and — of 65°–200°C distillates of Usino petroleum 1, 27
Hydrocarbons, pyrolysis of naphthenic — 3, 179
Hydrocarbons, synthesis of — from CO and H_2 in the presence of catalysts based on mononuclear iron complexes 4, 241
Hydroformylation, cluster formation as the cause of deactivation of carbonyl-rhodium catalysts in — of olefins 4, 233
Hydrogenation of aromatic hydrocarbons on nickel catalysts modified with heteropolycompounds 4, 221
Hydrogenation, effect of heterocyclic organic compounds upon — of toluene in the presence of catalysts based on hydrides of intermetallic compounds 4, 229

Intermetallic compounds, effect of heterocyclic organic compounds upon hydrogenation of toluene in the presence of catalysts based on hydrides of — 4, 229
Isolycopane, lycopane and — in petroleum 4, 211

Kinetic regularities of oxidation of fuel T-6 1, 6

Lycopane and isolycopane in petroleum 4, 211

Methanol, active centres of decationated zeolites in oxidative transformation of — 3, 160
Methylation, oxidative — of toluene 3, 148
Mononuclear iron complexes, synthesis of hydrocarbons from CO and H_2 in the presence of catalysts based on — 4, 241

Naphthenic hydrocarbons, pyrolysis of — 3, 179
Nickel catalysts, hydrogenation of aromatic hydrocarbons on — modified with heteropolycompounds 4, 221
Nitrogen bases of 180°–360°C cuts of West Siberian crude oil 1, 34
Nitrogen bases, the nature of — of West Siberian crude oils 2, 105
Nitrogen dioxide, oxidation of petroleum sulphides with — 1, 19

Oil additives, acetoxymethyl esters of xanthic, dialkyldithiocarbamic and O,O-dialkyldithiophosphoric acids as antiwear lubricating — 3, 185
Olefins, causes of deactivation of chromium-containing Y type zeolites in hydration of — 3, 174
Olefins, cluster formation as the cause of deactivation of carbonyl-rhodium catalysts in hydroformylation of — 4, 233
Organo-sulphur compounds and hydrocarbons of 65°–200°C distillates of Usino petroleum 1, 27

Oxidation of jet fuel inhibited with aromatic diamine and aminophenol in the presence of metallic copper 3, 166
Oxidation of petroleum sulphides with nitrogen dioxide 1, 19
Oxidation, kinetic regularities of — of fuel T-6 1, 6
Oxidative dehydrogenation of ethylbenzene on vanadium-magnesium oxide catalysts 3, 144
Oxidative methylation of toluene 3, 148
Oxidative transformation, active centres of decationated zeolites in — of methanol 3, 160

Paramagnetic properties, effect of solvents on — of asphaltenes 3, 196
Petroleum, composition and structure of high molar mass polycyclic naphthenic hydrocarbons of — 2, 71
Petroleum, lycopane and isolycopane in — 4, 211
Petroleum, organo-sulphur compounds and hydrocarbons of 65°–200°C distillates of Usino — 1, 27
Petroleum, study of the chemical nature of residual bitumen components from West Siberian — 2, 83
Petroleum fractions, composition of vanadylporphyrins of crude oils from several Surgut — of West Siberia 1, 55
Petroleum sulphides, oxidation of — with nitrogen dioxide 1, 19
Petroleum sulphoxides, new selective solvents of aromatic hydrocarbons based on — 1, 49
Petroleum vanadylporphyrins, highly effective liquid chromatography of — 3, 189
Petroleum vanadylporhyrins, special features of the composition and chemical structure of "green pigments"–anomalous components of — 2, 126
Petroleums, the composition of asphaltenes and resins of West Siberian — 2, 95
Platinum catalyst, effect of germanium and zirconium on the activity of a — in dehydrocyclization of n-hexane 1, 45
Polycyclic naphthenic hydrocarbons, composition and structure of high molar mass — of petroleum 2, 71
Pyrolysis of naphthenic hydrocarbons 3, 179

Resin formation, dienophile compounds as inhibitors of — in fuels 4, 246
Resins, the composition of asphaltenes and — of West Siberian petroleums 2, 95

Solvents, new selective — of aromatic hydrocarbons based on petroleum sulphoxides 1, 49
Synthesis of hydrocarbons from CO and H_2 in the presence of catalysts based on mononuclear iron complexes 4, 241

Toluene, effect of heterocyclic organic compounds upon hydrogenation of — in the presence of catalyst based on hydrides of intermetallic compounds 4, 229
Toluene, oxidative methylation of — 3, 148
Triazine derivatives, anti-oxidative action of — in hydrocarbon fuel 1, 12

Vanadium-magnesium oxide catalysts, oxidative dehydrogenation of ethylbenzene on — 3, 144
Vanadylporphyrins, composition of — of crude oils from several surgut petroleum fractions of West Siberia 1, 55
Vanadylporphyrins, highly effective liquid chromatography of petroleum — 3, 189
Vanadylporphyrins, special features of the composition and chemical structure of "green pigments"–anomalous components of petroleum — 2, 126

Xanthic, dialkyldithiocarbamic and O,O-dialkyldithiophosphoric acids, acetoxymethyl esters of — as antiwear lubricating oil additives **3,** 185

Zeolites, active centres of decationated — in oxidative tranformation of methanol **3,** 160
Zeolites, causes of deactivation of chromium-containing Y type — in hydration of olefins **3,** 174
Zirconium, effect of germanium and — on the activity of a platinum catalyst in dehydrocyclization of n-hexane **1,** 45